

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Wachter and Remington Art Unit: Unassigned  
Parent Serial No.: 09/575,847 Examiner: Unassigned  
Parent Filing Date: May 19, 2000  
Serial No.: Unassigned  
Filed: July 14, 2003  
Title: LONG WAVELENGTH ENGINEERED FLUORESCENT PROTEINS

**Mail Stop PATENT APPLICATION**

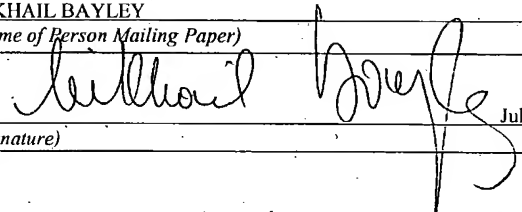
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

In accordance with 37 § CFR 1.97, Applicants bring to the Examiner's attention the related parent patent application, U.S. Serial No. 09/575,847, filed May 19, 2000, which is relied upon for an earlier filing date under 35 USC § 121. For the convenience of the Examiner, copies of the PTO Forms 1449 are enclosed.

It is respectfully requested that these references be considered in the examination of this application and their consideration be made of written record in the application file.

<b>CERTIFICATION UNDER 37 CFR §1.10</b> "EXPRESS MAIL" Mailing Label Number: <b>EV 318 738 041 US</b> Date of Deposit: July 14, 2003
I hereby certify that this correspondence is being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" with sufficient postage on the date indicated above and is addressed to: Mail Stop PATENT APPLICATION, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
<b>MIKHAIL BAYLEY</b> (Name of Person Mailing Paper)
 (Signature)
July 14, 2003 (Date)


In re Application of:  
Wachter and Remington  
Application No.: Unassigned  
Filed: July 14, 2003  
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PATENT  
Attorney Docket No.: REGEN1250-5

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement, because it is being filed prior to the receipt of a first office action on the merits of the above-captioned application. However, if any fee is required, authorization is hereby given to charge any fees associated with the filings submitted herewith, or credit any overpayment to Deposit Account No. 50-1355. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

Date: July 14, 2003



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FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office	Docket No. REGENTS1250-5	Serial No.: 09/575,847
	Applicant(s): Wachter et al.	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Filing Date: May 19, 2000	Group Art Unit: 1652

### U.S. PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE

### FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATIO N (YES/NO)

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

AA	<del>Elsiger, Marc Andre et al., "Structural and Spectral Response of Green Fluorescent Protein Variants to Changes in pH<sup>11</sup>," <i>Biochemistry</i>, Vol. 38, Pages 5296-5301, (1999)</del>
AB	<del>Jayaraman, Sujatha et al., "Mechanism and Cellular Applications of a Green Fluorescent Protein-based Halide Sensor," <i>J. Biol. Chem.</i>, 2000 275(9) 6047-6050</del>
AC	<del>Wachter, Rebekka M. et al., "Structural Basis of Spectral Shifts In the Yellow-emission Variants of Green Fluorescent Protein," <i>Structure</i>, Vol. 6, No. 10, Pages 1267-1277 (1998)</del>

→ References are of record.

EXAMINER  <i>N. Ahmed</i>	DATE CONSIDERED  10/3/02
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

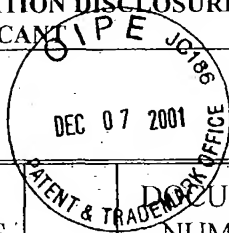
FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office	Docket No. REGENTS1250-5	Serial No.: 09/575,847
	Applicant(s): Wachter et al.	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Filing Date: May 19, 2000	Group Art Unit: 1652

	AD	Wachter, Rebekka M. et al. "Crystal Structure and Photodynamic Behavior of the Blue Emission Variant Y66H/Y145F of Green Fluorescent Protein," <i>Biochemistry</i> , Vol. 36, Pages 9759-9765, (1997). <i>reference of record</i>
NC	AE	Wachter, Rebekka M. et al., "Sensitivity of the Yellow Variant of Green Fluorescent Protein to Halides and Nitrate," <i>Current Biology</i> , Vol. 19, No. 17, Pages R628-R629, (1999).
		9

EXAMINER <i>N. Sheet</i>	DATE CONSIDERED <i>10/31/02</i>
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we	AA	Elsiger, Marc-Andre et al., "Structural and Spectral Response of Green Fluorescent Protein Variants to Changes in pH <sup>14</sup> ," <i>Biochemistry</i> , Vol. 38, Pages 5296-5301, (1999)
we	AB	Jayaraman, Sujatha et al., "Mechanism and Cellular Applications of a Green Fluorescent Protein-based Halide Sensor," <i>J. Biol. Chem.</i> , 2000 275(9) 6047-6050
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Form 1449

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<b>FORM PTO-1449</b> U.S. Department of Commerce Patent and Trademark Office	Docket No. REGENTS1250-5	Serial No.: 09/575,847
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>	Applicant(s): Wachter et al.	
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<i>me</i>	AD	Wachter, Rebekka M. et al. "Crystal Structure and Photodynamic Behavior of the Blue Emission Variant Y66H/Y145F of Green Fluorescent Protein," <i>Biochemistry</i> , Vol. 36, Pages 9759-9765, (1997)
	AE	<del>Wachter, Rebekka M. et al., "Sensitivity of the Yellow Variant of Green Fluorescent Protein to Halides and Nitrate," <i>Current Biology</i>, Vol. 19, No. 17, Pages R628-R629,</del>
		<i>In complete citation. No date for the reference</i>

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Applicant's Copy

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REGEN1250-5SERIAL NO.  
09/575,847INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)APPLICANT:  
WACHTER and REMINGTONFILING DATE:  
May 19, 2000GROUP:  
1633

## U.S. PATENT DOCUMENTS

AMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
NE	P1	5,491,084	02/13/96	Chalfie et al	435	189	
NE	P2	5,625,048	04/29/97	Tsien et al.	536	23.4	
NE	P3	5,777,079	07/07/98	Tsien et al.	530	350	
NE	P4	5,795,737	08/18/98	Seed et al.	435	69.1	
NE	P5	5,804,387	09/08/98	Cornack et al.	435	6	

## FOREIGN PATENT DOCUMENTS

AMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
NE	F1	WO 91/01305	02/07/91	PCT				
	F2	WO 95/07463	03/16/95	PCT				
	F3	WO 95/21191	08/10/95	PCT				
	F4	WO 96/23810	08/08/96	PCT				
	F5	WO 96/23898	08/08/96	PCT				
	F6	WO 96/27027	09/06/96	PCT				
	F7	WO 96/27675	09/12/96	PCT				
	F8	WO 97/11094	03/27/97	PCT				
NE	F9	WO 97/26333	01/17/97	PCT				

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1633

NE	F10	WO 97/28261	08/07/97	PCT				
NE	F11	WO 97/42320	05/07/97	PCT				

## OTHER PUBLICATIONS (including Author, Title, Date, Pertinent Pages, Etc.)

NE	D1	Baldwin et al. Biochemistry 29 5509-5915 (1990)
	D2	Chalfie et al. Science 263 802-804 (1994)
	D3	Cheng et al. Nature Biotechnology 14 606-609 (1996)
	D4	Cody et al. Biochemistry 32 1212-1218 (1993)
	D5	Cornack, et al., Gene 173 33-38 (1996)
	D6	Chatterj et al. Proc. Natl. Acad. Sci. 93 8362-8367 (1996)
	D7	Cramer et al. Nature Biotech. 14 315-319 (1996)
	D8	Cubitt et al., Trends in Biochem. Sci. 20:488-455 (1995)
	D9	Delagrave et al. BioTechnology 13 151-154 (1995)
	D10	Dickson et al., Science 274 966-969 (1996)
	D11	Ehrig et al. FEBS Letters 367 163-166 (1995)
	D12	Giuliano et al. Ann. Rev. Biophys. Biomol. Struct 24 405-435 (1995)
	D13	Heim et al. Proc. Natl. Acad. Sci. 91 12501-12505 (1994)
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	D15	Heim et al., Current Biology 6:178-182 (February 1996)
NE	D16	Inouye and Tsuji FEBS Lett 341 277-280 (1994)

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NE	D17	Kain et al. BioTechniques 19:650-655 (1995)
	D18	Levine et al. Comp. Biochem. Physiol. 72B 77-85 (1982)
	D19	Mitra et al. Gene 173 13-17 (1996)
	D20	Muhirad et al. Yeast 8 79-82 (1992)
	D21	Norris et al. Plant Molecular Biology 24 673-677 (1994)
	D22	Niwa, et al. Proc. Natl. Acad. Sci. 93 13617-13622 (1996)
	D23	Orino et al. Science 273 1392-1395 (1996)
	D24	Palm et al. Nature Struct. Biol. 4 361-365 (1997)
	D25	Perozzo et al. J. Biol. Chem. 263 7713-7716 (1988)
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	D27	Roth Thesis from the graduate program in Biochemistry from Rutgers, the state University of New Jersey (October 1985)
	D28	Ward in Bioluminescence and Chemiluminescence (eds DeLuca et al., 235-242 (Academic Press, NY, 1981)
	D29	Ward et al. Biochemistry 21 4535-4540 (1982)
	D30	Ward et al. Photochem Photobiol. 35 803-808 (1982)
	D31	Yang et al. Nature Biotechnology 14 1246-1251
	D32	Yokoe and Meyer Nature Biotech 14 1252-1256 (1996)
	D33	Zolotukhin et al., 70 4646-4654 (1996)
NE	D34	S. Delagrave and D. Yourvan, "Searching sequence space to engineer proteins: exponential ensemble mutagenesis," Bio Technology, 11:1548-1552 (December, 1993).

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